

## Certificate of Analysis

Date of Testing: 2022-05-25 14:59:16  
Date of Next Testing: 2026-05-24 14:59:16  
Product Name: **Magnesium chloride hexahydrate**  
CAS Number: 7791-18-6  
Specifications & Purity: ACS,99.0-102.0%  
Lot #: C2224357  
SKU #: **M116333**  
**Analysis: 091834**  
Storage Temperature: Desiccated

| Parameter                               | Limit Values          | Result                |
|---|-----------------------|-----------------------|
| Calcium(Ca)                             | 0-0.01 (%)            | 0.00 %                |
| Water by Karl Fischer                   | 51.5-53.5 (%)         | 53.24 %               |
| Strontium(Sr)                           | 0-0.005 (%)           | 0.00 %                |
| Assay                                   | 99-102 (%)            | 100.00 %              |
| Manganese(Mn)                           | 0-5 (ppm)             | 2.50 ppm              |
| Potassium(K)                            | 0-0.005 (%)           | 0.00 %                |
| Sodium(Na)                              | 0-0.005 (%)           | 0.00 %                |
| Heavy metal (as Pb)                     | 0-5 (ppm)             | 3.10 ppm              |
| (NO <sub>3</sub> )Nitrate               | 0-0.001 (%)           | 0.00 %                |
| Ammonia (NH <sub>4</sub> )              | 0-0.002 (%)           | 0.00 %                |
| Iron(Fe)                                | 0-5 (ppm)             | 2.20 ppm              |
| Phosphate(PO <sub>4</sub> )             | 0-5 (ppm)             | 3.50 ppm              |
| Insoluble matter in H <sub>2</sub> O    | 0-0.005 (%)           | 0.00 %                |
| Sulfate(SO <sub>4</sub> <sup>2-</sup> ) | 0-0.002 (%)           | 0.00 %                |
| Barium(Ba)                              | 0-0.005 (%)           | 0.00 %                |
| X-Ray Diffraction                       | Conforms to Structure | Conforms to Structure |



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A handwritten signature in black ink that reads "John Su". The signature is written in a cursive, flowing style.

John Su  
QA & QC Manager